

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing of claims in the application.

Claims:

1-36 (Cancelled)

37. (Currently amended) A method of generating cultured functional mast cells, comprising the steps of:

- a) contacting at least one CD34-positive cell with a flt-3 ligand and a stem cell factor to generate a proliferated population of progenitor cells; and thereafter
- b) contacting said progenitor cells with said stem cell factor and a cytokine suitable for differentiating the progenitor cells into mast cells, thereby forming a proliferated population of functional mast cells.

38. (Currently amended) The method of claim 37 in which the cytokine is IL-6 ~~and the mast cells are mucosal mast cells.~~

39. (Previously presented) The method of claim 38 in which the IL-6 is human IL-6.

40. (Currently amended) The method of claim 37 in which the cytokine is IL-4~~and the mast cells are connective tissue type mast cells.~~

41. (Withdrawn) The method of claim 40 in which the IL-4 is human IL-4.

42. (Previously presented) The method of claim 37 in which the flt-3 ligand is human flt-3 ligand.

43. (Previously presented) The method of claim 37 in which the stem cell factor is human stem cell factor.

44. (Previously presented) The method of claim 37 in which the CD34-positive cell is a human CD34-positive cell.

45. (Previously presented) The method of claim 37 in which the CD34-positive cell is obtained from umbilical cord blood.

46. (Previously presented) The method of claim 37 in which the proliferated population of progenitor cells comprises at least about 10^7 cells.

47. (Previously presented) The method of claim 37 in which the proliferated population of progenitor cells comprises at least about 10^8 cells.

48. (Previously presented) The method of claim 37 in which the proliferated population of progenitor cells comprises at least about 10^9 cells.

49. (Previously presented) The method of claim 37 in which the proliferated population of progenitor cells comprises at least about 10^{10} cells.

50. (Previously presented) The method of claim 37 in which the proliferated population of progenitor cells comprises at least about 10^{11} cells.

51-80 (Cancelled)